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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/521,851	01/21/2005	Erwin Rinaldo Meinders	NL 020676	6189

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PHILIPS INTELLECTUAL PROPERTY & STANDARDS
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EXAMINER	
HEYI, HENOK G	

ART UNIT	PAPER NUMBER
2627	

MAIL DATE	DELIVERY MODE
12/07/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/521,851	MEINDERS, ERWIN RINALDO	
	Examiner	Art Unit	
	Henok G. Heyi	2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-9 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-9 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☑ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Specification

1. This application does not contain an abstract of the disclosure as required by 37 CFR 1.72(b). An abstract on a separate sheet is required.

The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

(a) TITLE OF THE INVENTION.
(b) CROSS-REFERENCE TO RELATED APPLICATIONS.
(c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
(d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT.
(e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC.
(f) BACKGROUND OF THE INVENTION.
    (1) Field of the Invention.
    (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
(g) BRIEF SUMMARY OF THE INVENTION.
(h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
(i) DETAILED DESCRIPTION OF THE INVENTION.
(j) CLAIM OR CLAIMS (commencing on a separate sheet).
(k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
(l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 2 and 4-7 are rejected under 35 U.S.C. 102(b) as being anticipated by Miyamoto et al. US 6,231,945 B1 (Miyamoto hereinafter).

Regarding claim 1, Miyamoto teaches a multi-stack optical information carrier (Fig. 1) for recording information by means of a laser beam (see col 13 lines 10-15), said optical information carrier comprising: a substrate layer (1, Fig. 1), at least two recording stacks (first stack contains 1through 9 and second stack contains 1' through 9', Fig. 1), each comprising a recording layer (5, 5'), at least one heat sink layer (2, 2') and dielectric layers between said recording layer and said at least one heat sink layer (3, 3'), at least one spacer layer separating the at least two recording stacks (10), and a cover layer (1'), characterized in that at least one recording stack further comprises at least one thermochromic layer (VO_2, col 3 line 61) having temperature-dependent optical characteristics for improving the sensitivity of at least one of said recording stacks during recording. VO_2 inherently has a thermochromic characteristic.

Regarding claim 2, Miyamoto teaches a multi-stack optical information carrier as claimed in claim 1, characterized in that said at least one thermochromic layer has a temperature-dependent absorption characteristic (see col 3 lines 54-61).

Regarding claim 4, Miyamoto teaches a multi-stack optical information carrier as claimed in claim 1, characterized in that said at least one thermochromic layer has a temperature-dependent reflection characteristic (see para 3 lines 14-18 and also lines 54-61).

Regarding claim 5, Miyamoto teaches a multi-stack optical information carrier as claimed in claim 4, characterized in that said thermochromic layer is essentially made of vanadium dioxide (VO_2, col 3 line 61).

Regarding claim 6, Miyamoto teaches a multi-stack optical information carrier as claimed in claim 1, characterized in that each recording stack comprises at least one thermochromic layer (7, 7' from Fig. 1).

Regarding claim 7, Miyamoto teaches a multi-stack optical information carrier as claimed in claim 1, characterized in that at least one recording stack comprises a thermochromic layer on both sides of the recording layer and dielectric layers for separating the thermochromic layers from the recording layer (para [0094]).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. Claim 3 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miyamoto in view of Balistreri et al. US 20060187806 (Balistreri hereinafter).

Regarding claim 3, Miyamoto teaches a multi-stack optical information carrier as claimed in claim 2, characterized in that the recording stack comprises a thermochromic layer but fails to teach that said thermochromic layer is essentially made of a thermochromic dye, in particular cyanine or phthalocyanine dye. However, Balistreri teaches exactly this (see page 6 para [0006]).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the optical recording medium of Miyamoto to include the use of thermochromic dye as taught by Balistreri above. The modification would have been obvious because it is fairly obvious in the art to use dye material in optical storage disc manufacturing.

Regarding claim 9, Miyamoto teaches a multi-stack optical information carrier as claimed in claim 1, but fails to explicitly teach the information carrier characterized in that said recording layers are made of a write-once material. However, Balistreri teaches the thermochromic recording material could be applied in ROM or WORM (write once read many) optical discs (para [0027]).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the optical recording medium of Miyamoto to be either read only,

write once or rewritable optical disc as taught by Balistreri above. The modification would have been obvious because it is fairly obvious in the art to produce different kinds of discs for different purposes.

6. Claims 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Miyamoto in view of Meinders et al. US 2002/0018870 A1 (Meinders hereinafter).

Regarding claim 8, Miyamoto teaches a multi-stack optical information carrier as claimed in claim 1, but fails to teach that the information carrier is characterized in that said recording layers are made of a phase-change material. However, Meinders teaches a multi-stack optical information carrier comprising a phase-change type recording layer (see para [0043] to [0044]).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the optical recording medium of Miyamoto to include the use of a phase change material as taught by Meinders above. The modification would have been obvious because it is fairly obvious in the art to use either phase-change or magnetic materials for layer manufacturing purposes.

Conclusion

The referenced citations made in the rejection(s) above are intended to exemplify areas in the prior art document(s) in which the examiner believed are the most relevant to the claimed subject matter. However, it is incumbent upon the applicant to analyze the prior art document(s) in its/their entirety since other areas of the document(s) may be relied upon at a later time to substantiate examiner's rationale of record. A prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention. W.L. Gore & associates, Inc. v. Garlock, Inc., 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984). However, "the prior art's mere disclosure of more than one alternative does not

constitute a teaching away from any of these alternatives because such disclosure does not criticize, discredit, or otherwise discourage the solution claimed...." In re Fulton, 391 F.3d 1195, 1201, 73 USPQ2d 1141, 1146 (Fed. Cir. 2004).

Contact

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Henok G. Heyi whose telephone number is (571) 270-1816. The examiner can normally be reached on Monday to Friday 8:30 to 6:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa Nguyen can be reached on (571) 272-7579. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

HGH
Patent Examiner
12/05/2007

TAN DINH
PRIMARY EXAMINER
12/06/07